

Application Serial No. 10/076,335
Supplemental Amendment A
Reply to Office Communication of June 16, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the above-identified applications:

Listing of Claims:

1. (Currently Amended) A method for determining a position of tracing an electronic device ~~transmitting identifying indicia over a global within a wide area network, the electronic device connectable to a network server through the global network, the said method comprising the steps of:~~

distributing a tracing tool to a first network element within said wide area network;
detecting a physical separation of said electronic device and an associated user;
determining identifying indicia for the of said electronic device, wherein said identifying indicia that are automatically transmitted by the said electronic device during communications communication between said electronic device and a second network element of said wide area over the global network;
automatically monitoring communications over the global traffic on said wide area network utilizing said tracing tool, wherein said monitoring comprises intercepting to identify data transmitted through the global network that contains the of said communication between said electronic device and said second network element including said identifying indicia in response to detecting said physical separation; and
upon identification of data transmitted through the global network that contains the identifying indicia, determining the location of the a physical position of said electronic device within said wide area network in response to an interception of said by tracing the source of the identifying indicia within the global network.

2. (Currently Amended) The method of claim [[1]] 21, wherein ~~the global network includes said distributing further comprises distributing said tracing tool to a plurality of Internet protocol routers within said wide area network.~~

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3. (Currently Amended) The method of claim 1, further comprising wherein determining the said identifying indicia of said electronic device comprises:

identifying data transmitted by said electronic device prior to said physical separation utilizing a portion of said wide area network; and
by extracting the said identifying indicia from data previously transmitted by the said electronic device prior to said physical separation and stored on the global network.

4. (Currently Amended) The method of claim [[3]] 1, wherein determining said the identifying indicia of said electronic device comprises determining a media access control is the (MAC) address of the said electronic device.

5. (Currently Amended) The method of claim 1, wherein determining said the identifying indicia of said electronic device comprises:

determining said identifying indicia utilizing at least one of is determined by indexing a known hostname and or an Internet Protocol (IP) address of the electronic device contained within data previously transmitted by the said electronic device prior to said physical separation utilizing a portion of said wide area and stored on the global network.

6. (Canceled)

7. (Currently Amended) The method of claim 1, wherein further comprising said method further comprises causing data specifying said entering the said identifying indicia into to be stored within a database stored in the associated with said first network server element prior to said physical separation, and determining said identifying indicia of said electronic device comprises determining said identifying indicia utilizing said performing a matching function on the network server that compares the data transmitted over the global network with the database to identify transmitted data containing the identifying indicia.

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8. **(Currently Amended)** The method of claim 1, said method further comprising, upon identification of data transmitted through the global network that contains the identifying indicia, notifying generating a notification indicating said physical position of said electronic device for a responsible party that data transmitted through the global network contains the identifying indicia associated with said electronic device.
9. **(Currently Amended)** A system for tracing determining a position of an electronic device transmitting identifying indicia over a global within a wide area network, the said system comprising:
 - a hardware fingerprint server that can to determine identifying indicia for the of said electronic device, wherein said identifying indicia that are automatically transmitted by the said electronic device during communications communication between said electronic device and a network element of said wide area over the global network;
 - a monitoring server, wherein the electronic device connectable to the monitoring server through the global network, that to detect a physical separation of said electronic device and an associated user and further to monitor traffic monitors communications on said wide area over the global network at said data processing system, wherein said monitoring server comprises to identify data transmitted through the global network that contains the identifying indicia an intercept module to intercept data of said communication between said electronic device and said network element including said identifying indicia in response to a detection of said physical separation; and
 - a tracing server that, upon identification of data transmitted through the global network that contains the identifying indicia, to determine a physical position of said determines the location of the electronic device within said wide area network in response to an interception of said by tracing the source of the identifying indicia at said interception module within the global network.
10. **(Canceled)**

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11. (Currently Amended) A The system according to of claim 9, wherein the said hardware fingerprint server is configured to

identify data transmitted by said electronic device prior to said physical separation

utilizing a portion of said wide area network; and

determines the identifying indicia by extract said extracting the identifying indicia from
said data previously transmitted by the said electronic device and stored on the
global network prior to said physical separation.

12. (Currently Amended) A The system according to of claim 9, wherein the said identifying indicia is the of said electronic device comprises a media access control (MAC) address of the said electronic device.

13-20 (Canceled)

21. (New) The method of claim 1, wherein said distributing comprises distributing said tracing tool to a plurality of network elements within said wide area network.

22. (New) The method of claim 1, wherein determining said physical position of said electronic device within said wide area network in response to said interception of said identifying indicia comprises:

transmitting a link tracing message between said electronic device and said first network element;

identifying a network element coupled between said electronic device and said first network element in response to a transmission of said link tracing message; and determining said physical position of said electronic device utilizing said network element coupled between said electronic device and said first network element.

23. (New) The system of claim 9, wherein said monitoring server is distributed among a plurality of network elements within said wide area network.

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24. (New) A machine-readable medium having a plurality of instructions executable by a machine embodied therein, wherein said plurality of instructions when executed cause said machine to perform a method for determining a position of an electronic device within a wide area network comprising:

distributing a tracing tool to a first network element within said wide area network;
detecting a physical separation of said electronic device and an associated user;
determining identifying indicia of said electronic device, wherein said identifying indicia are automatically transmitted by said electronic device during communication between said electronic device and a second network element of said wide area network;
monitoring traffic on said wide area network at said first network element utilizing said tracing tool, wherein said monitoring comprises intercepting data of said communication between said electronic device and said second network element including said identifying indicia in response to detecting said physical separation; and
determining a physical position of said electronic device within said wide area network in response to an interception of said identifying indicia.

25. (New) The machine-readable medium of claim 24, wherein said distributing comprises distributing said tracing tool to a plurality of network elements within said wide area network.

26. (New) The machine-readable medium of claim 24, wherein determining said identifying indicia of said electronic device comprises:

identifying data transmitted by said electronic device prior to said physical separation utilizing a portion of said wide area network; and
extracting said identifying indicia from said data transmitted by said electronic device prior to said physical separation.

27. (New) The machine-readable medium of claim 24, wherein determining said identifying indicia of said electronic device comprises determining a media access control address of said electronic device.

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28. (New) The machine-readable medium of claim 24, wherein determining said physical position of said electronic device within said wide area network in response to said interception of said identifying indicia comprises:

transmitting a link tracing message between said electronic device and said first network element;

identifying a network element coupled between said electronic device and said first network element in response to a transmission of said link tracing message; and determining said physical position of said electronic device utilizing said network element coupled between said electronic device and said first network element.